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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,810

02/09/2006

Oren Pereg

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EXAMINER

ABEBE, DANIEL DEMELASH

ART UNIT

PAPER NUMBER

2626

MAIL DATE

DELIVERY MODE

12/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,810	<b>Applicant(s)</b> PEREG ET AL.	
	<b>Examiner</b> Daniel D. Abebe	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.                                                            | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statements filed 3/07/2007 and 5/01/2006 fail to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because some of the Non-patent literatures cited by the applicant do not include the publication dates as required. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***.Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 rejected under 35 U.S.C. 102(e) as being anticipated by Gorin et al. (7,295,970).

As to claim 1, Gorin teaches a speaker segmentation method for associating segments of speech interaction between at least two sides of speakers with one of the speakers using additional information, the method comprising the steps of:

A segmentation step for associating at least one speech segment with one side of interaction; and

A scoring step for assigning a score to the segmentation (abstract; Fig.1-5)

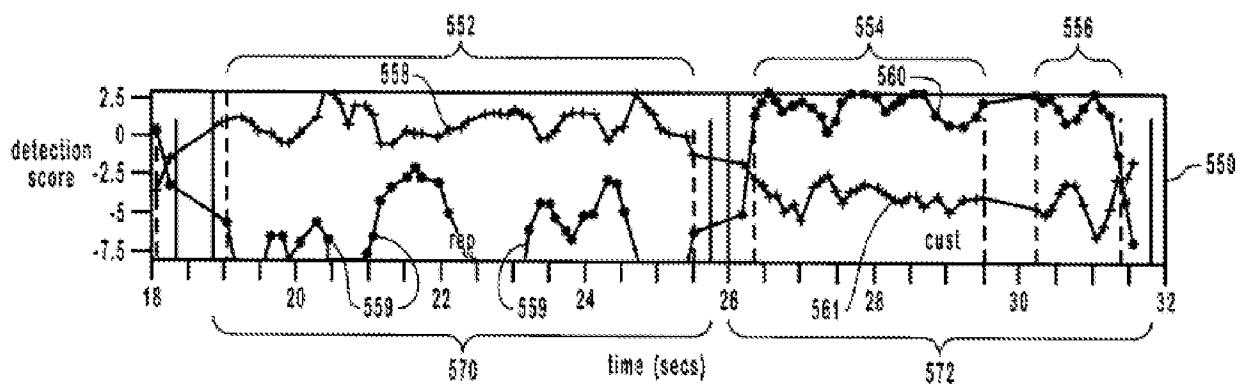


FIG. 5

More particularly, figure 5 in Gorin shows the segmentation of two speech interaction segments (570 and 572) that took place between a customer represented by dots and a customer representative represented by the cross symbol.

the first segment 570 shows a score 559 for the customer and a score 558 for the representative. this segment is labeled for the representative as the detection score 558 is greater than the detection score 559. in the next segment 572, the score 560 of the customer is higher than the representative score and the segment is labeled as the customer.

As to claim 2, Gorin teaches where the additional information is at least one of data related to the speaker thereof (Col.7, lines 10-15; Col.4, line 6-12).

As to claim 3, Gorin teaches a model association step for scoring the segment against a statistical model of one of the speakers and obtaining score (Fig.3; Col.4, lines 5-35).

As to claim 4, Gorin teaches where the scoring step uses likelihood information to discriminate the segments between the two sides of the interaction (Col.8, lines 20-25; Fig.5).

As to claim 6, Gorin teaches where the scoring step includes normalizing the likelihood score (Col.8, lines 25-28).

As to claims 7-8, Goring teaches where the score indicates the likelihood between the segment and the background model representing one of the speakers using additional information and where the additional information is at least one of data related to the speaker thereof (Col.8, lines 20-25; Col.7, lines 10-15).

As to claim 9, Gorin teaches where the scoring comprises statistical scoring (Fig.3; Col.4, lines 5-35).

As to claims 10-11, Gorin teaches where the scoring is iteratively conducted until the difference between each iteration reaches below a specific/predetermined threshold value (Col.8, lines 25-32).

As to claims 12-13, Gorin teaches where the speech is parameterized into data more suitable for statistical modeling such as GMM model and anchoring step (initial segmentation step using additional information) and associating step for associating speech segments with at least one speaker (Col.7, lines 10-15; Col.4, line 6-12).

As to claim 14, the additional information that the system uses to help it associate speech segment is addressed in the claims above.

As to claim 15, a preprocessing step to enhance the speech signal will be inherent in Gorin teaching.

As to claim 16, Gorin teaches wherein the segmentation step includes identifying non speech segments (Col.6, lines 22-26).

As to claim 17, Gorin teaches wherein the segmentation step comprises comparing the segment with model of known speaker (Col.4, line 6-12).

As to claim 18, Gorin teaches a speaker segmentation apparatus for associating segments of speech interaction between at least two sides of speakers with one of the speakers using additional information, the method comprising the steps of:

A segmentation component for associating at least one speech segment with one side of interaction; and

A scoring component for assigning a score to the segmentation (abstract; Fig.1-5).

As to claim 19, Gorin teaches where the additional information is at least one of data related to the speaker thereof (Col.7, lines 10-15; Col.4, line 6-12).

*As to claim 20, Gorin teaches interaction recording component for recording telephone interaction between at least two speakers; and*

*A segmentation component for associating segments of speech with each of at least two speakers (Figs.1-5);*

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*With regard to the playback component, Gorin teaches where the unsupervised segmentation is used for indexing archived broadcast news program by speakers to facilitate browsing and retrieval of desired portion of broadcast news (Col.2, lines 3-8) therefore the playback component is inherent in Gorin system.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Abebe whose telephone number is 571-272-7615. The examiner can normally be reached on monday-friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel D Abebe/  
Primary Examiner, Art Unit 2626